Agilent D1K ScreenTape and High Sensitivity D1K ScreenTape

Accelerate DNA analysis with the Agilent 2200 TapeStation system

Automated DNA electrophoresis with scalable throughput

The Agilent 2200 TapeStation system provides automated, fast and reliable RNA, DNA and protein electrophoresis.

The D1K ScreenTape has been developed for the separation and analysis of DNA fragments from 35 bp to 1000 bp. Depending on the sensitivity requirements, it is possible to choose between the D1K ScreenTape and the High Sensitivity D1K ScreenTape.

DNA sample analysis has never been so easy – simply load the 2200 TapeStation with the appropriate D1K ScreenTape, loading tips, and samples in tube strips or 96-well plates, and you will be reviewing results in 1 minute per sample.

Complete Solution for DNA analysis

- Agilent D1K ScreenTape (5067-5361) or Agilent High Sensitivity D1K ScreenTape (5067-5363)
- Agilent D1K Reagents (5067-5362) or Agilent High Sensitivity D1K Reagents (5067-5364)
- Agilent 2200 TapeStation system (G2964AA) or (G2965AA)

Key Features

Superior accuracy and precision

Accurate and reliable sizing and quantitation of PCR fragments, fragmented DNA, and DNA libraries.

Zero carryover

In addition to individual loading tips for each sample - the ScreenTape runs each DNA sample in a separate lane.

Excellent sensitivity

Qualify your precious DNA sample down to a concentration of 5 pg/µL per fragment.

Scalable throughput

Individual channels facilitate variable throughput at a constant cost per sample.

Low sample need

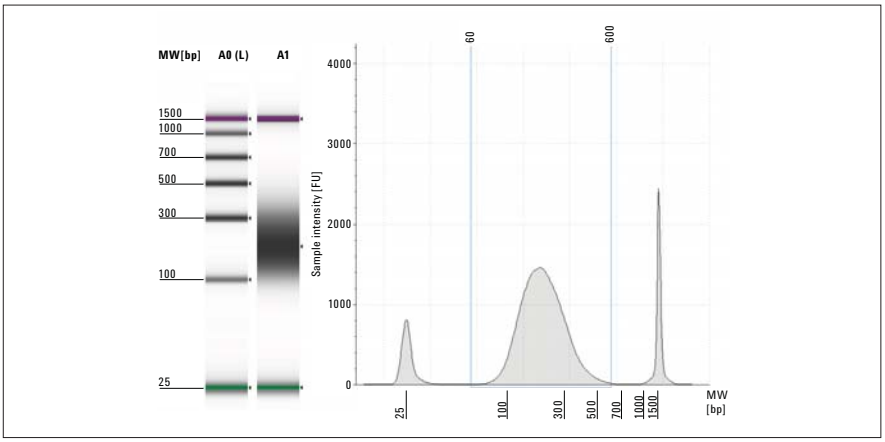
Use no more than 2 µL of your precious samples per run - even for high sensitivity analysis.

Fast results

Obtain results in approximately one minute per sample, even for 96 samples.

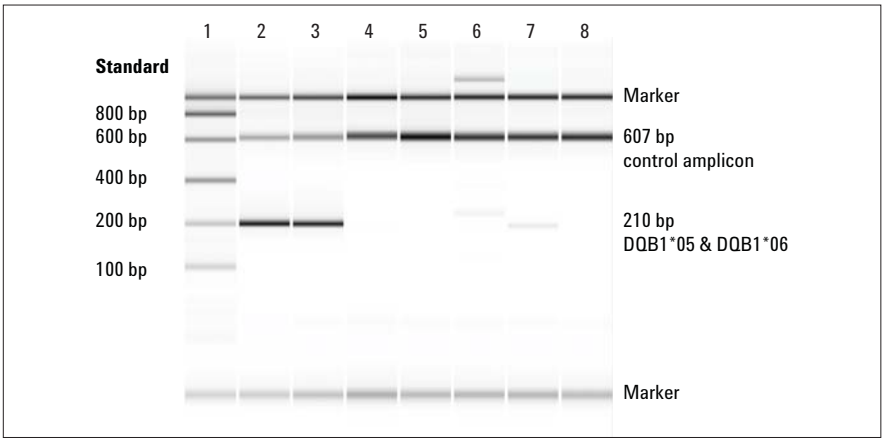
Agilent Technologies

Agilent D1K ScreenTape applications



DNA analysis during the NGS workflow

The Agilent 2200 TapeStation system was used at several steps of the NGS workflow such as shearing of genomic DNA and library amplification to ensure DNA library and sample quality. The figure shows the analysis of a post shear sample of the SureSelect target enrichment workflow with the D1K ScreenTape.



Analysis of PCR-SSP amplicons for human leukocyte antigen (HLA) genotyping

The gel image and the automated sizing of PCR bands simplify the determination of positive or negative PCR reactions. Each PCR-SSP reaction contains approximately 607 bp control amplicon shown in all reactions (lanes 2–7). Lanes 2 and 3 show specific bands at approximately 210 bp that correlate to a DQB1*05 and DQB1*06 genotype.

Analytical specifications	Agilent D1K ScreenTape	Agilent High Sensitivity D1K ScreenTape
Sizing range	35 – 1,000 bp	35 – 1,000 bp
Resolution	35 – 300 bp: 15% 300 – 1,000 bp: 10%	35 – 300 bp: 15% 300 – 1,000 bp: 10%
Sensitivity	0.05 ng/µL	5 pg/µL
Sizing precision	5% CV	5% CV
Sizing accuracy	± 10%	± 10%
Quantitative precision	10% CV	15% CV
Quantitative accuracy	± 20%	± 20%
Quantitative range	0.1 – 50 ng/µL	75 – 1,000 pg/µL

Physical specifications		
Analysis time	16 samples < 20 minutes 96 samples < 100 minutes	16 samples < 20 minutes 96 samples < 100 minutes
Samples per consumable	16	16
Sample volume required	1 µL	2 µL
Kit stability	4 months	4 months
Kit size	112 samples/box	112 samples/box

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